

WHAT IS CLAIMED IS:

1. A semiconductor apparatus comprising:
a substrate;
m electrically conductive layers formed on said substrate, m being an integer of 2 or more, potentials of said m electrically conductive layers being capable of being independently controlled; and
semiconductor thin films including at least one semiconductor device respectively, said semiconductor thin films being bonded on surfaces of said m electrically conductive layers respectively.
2. The semiconductor apparatus according to claim 1, further comprising an integrated circuit formed in said substrate, said substrate being a semiconductor substrate.
3. The semiconductor apparatus according to claim 1, further comprising an integrated circuit device disposed on said substrate, said substrate being an insulating substrate.
4. The semiconductor apparatus according to claim 1, wherein said semiconductor device includes a first-conductive-type semiconductor layer and a second-conductive-type semiconductor layer,
a conductive-type of said second-conductive-type semiconductor layer being different from a conductive-type of said first-conductive-type semiconductor layer, and
said first-conductive-type semiconductor layer being in contact with said electrically conductive layer.
5. The semiconductor apparatus according to claim 1, wherein number of said semiconductor thin films is m, and said m semiconductor thin films are bonded on said m

electrically conductive layers respectively in a one-to-one correspondence.

6. The semiconductor apparatus according to claim 5, wherein ends of said electrically conductive layers in a row direction of said semiconductor devices and ends of said semiconductor thin films in a row direction of said semiconductor devices are located on imaginary reference planes perpendicular to a surface of said substrate in such a way that said ends of said electrically conductive layers and said ends of said semiconductor thin films are in alignment.

7. The semiconductor apparatus according to claim 5, wherein number of said semiconductor devices is n for each of said semiconductor thin films, n being an integer of 2 or more.

8. The semiconductor apparatus according to claim 1, wherein number of said semiconductor thin films bonded on said m electrically conductive layers is n for each of said electrically conductive layers, n being an integer of 2 or more.

9. The semiconductor apparatus according to claim 8, wherein number of said semiconductor device formed in each of said n semiconductor thin films is 1.

10. The semiconductor apparatus according to claim 7, further comprising:

m common wiring lines disposed on said substrate, potentials of said m common wiring lines being capable of being independently controlled, said m common wiring lines being electrically connected to said m electrically conductive layers in a one-to-one correspondence; and

n signal wiring lines disposed on said substrate, potentials of said n signal wiring lines being capable of being independently controlled;

wherein said n second-conductive-type semiconductor layers disposed on each of said m electrically conductive layers are electrically connected to said n signal wiring lines so that k-th one of said n second-conductive-type semiconductor layers and k-th one of said n signal wiring lines are electrically connected in a one-to-one correspondence, k being an integer between 1 and n.

11. The semiconductor apparatus according to claim 10, further comprising individual interconnecting lines extending from upper surfaces of said second-conductive-type semiconductor layers of said semiconductor devices in said semiconductor thin films to said signal wiring lines.

12. The semiconductor apparatus according to claim 11, wherein said individual interconnecting lines are thin films formed by photolithography.

13. The semiconductor apparatus according to claim 10, wherein said integrated circuit includes a driving-IC for driving said semiconductor devices, and said m common wiring lines and said n signal wiring lines are electrically connected to said driving-IC.

14. The semiconductor apparatus according to claim 1, wherein said semiconductor thin films mainly consist of compound semiconductor.

15. The semiconductor apparatus according to claim 1, wherein said semiconductor device is any of a light-emitting element, a light-sensing element, a Hall element, and a

piezoelectric element.

16. The semiconductor apparatus according to claim 1, wherein said electrically conductive layers are made of any of metal and polysilicon.

17. An optical print head including the semiconductor apparatus of claim 1.

18. The optical print head of claim 17, wherein the semiconductor device in the first thin semiconductor film in the semiconductor apparatus is a light-emitting element, the semiconductor apparatus including a plurality of such light-emitting elements, the optical print head further including:

a base for supporting the combined semiconductor apparatus;

a rod lens array for focusing the light emitted by the light-emitting elements in the combined semiconductor apparatus;

a holder for holding the rod lens array; and

at least one clamp for holding the base and the holder together.

19. An image-forming apparatus comprising at least one optical print head including the semiconductor apparatus of claim 1.

20. The image-forming apparatus of claim 19, further comprising:

a photosensitive drum selectively illuminated by the optical printing head to form a latent electrostatic image.

21. The image-forming apparatus of claim 20, further comprising:

a developing unit for supplying toner to develop the latent electrostatic image on the photosensitive drum; and

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a transfer roller for transferring the developed image from the photosensitive drum to printing media.